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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/973,627

10/09/2001

Joseph E. Devlin

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10/18/2005

BARLOW, JOSEPHS & HOLMES, LTD.

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PROVIDENCE, RI 02903

EXAMINER

MARCELO, MELVIN C

ART UNIT

PAPER NUMBER

2662

DATE MAILED: 10/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/973,627

Applicant(s)

DEVLIN, JOSEPH E.

Examiner

Melvin Marcelo

Art Unit

2662

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 August 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4 and 5 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4 and 5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 November 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Allowable Subject Matter

1. The indicated allowability of claims 1, 2, 4 and 5 are withdrawn in view of the newly discovered reference(s) to Brahmaroutu (US 2003/0033427 A1). Rejections based on the newly cited reference(s) follow.

The rejections are based on a broad interpretation of the term "score." The examiner interprets the term to mean any value (such as a cost value) associated with a port pairing. The specification appears to suggest a narrower interpretation wherein "score" is associated with "best match complement" (specification, page 12, lines 4-7, "[t]hose skilled in the art will recognize that other methods for rating or scoring links are also possible, based generally on the principle that the FDB of a port should be a best match of the complement of the port to which it is connected"). However, it is not clear that such a limitation in the specification should be read into the claim.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 2 and 4 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Brahmaroutu (US 2003/0033427 A1).

With respect to the claims below, references to the prior art appear in parenthesis.

Claims

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1. *A method of determining the connectivity of switches in a computer network (Brahmaroutu, method in Figure 6 and paragraphs 0040-0051), each switch including a plurality of ports for connection to other switches and network elements (Computer network in Figure 4), comprising:*

determining all the possible port pairings (Figure 6, box 610);

determining a score for each port pairing (Cost is computed for each path between two ports, paragraphs 0049-0052); and

selecting the port pairing having the highest score (Least cost value paths are selected, paragraph 0051).

2. *The method of Claim 1 wherein the score for each port is determined by determining how well the pairing conforms to a set of given properties (Given properties correspond to the cost metrics-hop count, MTU size, link speed, width and other port and link characteristics, paragraph 0049).*

4. *The method of Claim 1 wherein said steps are performed by a computer in the network (Subnet manager 450A performs the flowchart of Figure 6 (paragraph 0040), wherein the subnet manager is a computer since it is running as software (paragraph 0030)).*

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Brahmaroutu.

Brahmaroutu does not teach determining a threshold for discarding scores below the threshold. In Brahmaroutu, the score is the cost computed from the path cost metric-hop count, MTU size, link speed, width and other port and link characteristics (paragraph 0049-0052). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a cost value threshold for which the path connecting the port pairing that exceeds the cost value threshold would have been prohibitive. A skilled artisan would have been motivated to provide a cost value threshold wherein computed values exceeding the threshold would have signified an undesirable path between ports. For example, an unsatisfactory hop count, MTU size, link speed, width and other port and link characteristics may result in an unusually high cost for the particular path connecting the two ports, such a path would not be desirable. With respect to the claims below, references to the prior art appear in parenthesis.

Claims

5. *The method of Claim 1 wherein selecting the port pairing having the highest score includes determining a threshold, and discarding scores below the threshold (Obvious to provide a threshold value for the computed cost in order to discard undesirable paths between ports).*


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melvin Marcelo whose telephone number is 571-272-3125. The examiner can normally be reached on Mon-Fri 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on 571-272-3088. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Melvin Marcelo
Primary Examiner
Art Unit 2662

October 14, 2005